

AMENDMENTS TO THE CLAIMS

1-38. (canceled).

39. (currently amended) A connection ~~unit~~ system for use in a bone fixation device, comprising:

a rod comprising a first end portion, a second end portion, a spacer and a longitudinal member~~a first end portion and a second end portion;~~

a spacer~~wherein the spacer is~~ interposed between the first and second end portions; ~~and~~

[a], the longitudinal member is located in a longitudinal axial channel of the spacer, ~~wherein~~ and the first and second end portions substantially limit motion of the spacer in a longitudinal direction of the longitudinal member; ~~and wherein the connection unit is sized and configured to be completely implanted into a patient and coupled to a bone structure of the patient by at least two securing members~~

a first bone securing member of a first bone securing assembly, the first bone securing member connected to the rod, wherein the first bone securing assembly secures the rod to a bone of a patient.

40. (previously presented) The connection ~~unit~~ system of claim 39 wherein said spacer further comprises a male interlocking member and a female interlocking cavity each configured to structurally interlock with a corresponding female interlocking cavity and male interlocking member, respectively, of an adjacent spacer and an adjacent end portion located on opposite sides of the spacer, or two adjacent spacers located on opposite sides of the spacer, or two adjacent end portions located on opposite sides of the spacer.

41. (currently amended) The connection ~~unit~~ system of claim 39 wherein said longitudinal member comprises at least one of a metal wire comprising a plurality of metal yarns and a braided metal wire structure comprising a plurality of interwoven metal wires.

42. (currently amended) The connection ~~unit~~ system of claim 39 further comprising a second bone securing member of a second bone securing assembly connected to the rod at a different location than the first bone securing member and wherein said longitudinal member comprises a braided metal wire structure comprising a plurality of interwoven metal wires the first and second bone securing assemblies secure the rod at least partially between the exterior of a first vertebra and a second vertebra such that the connection system limits movement of the first vertebra relative to the second vertebra.

43. (canceled).

44. (currently amended) The connection ~~unit~~ system of claim 39 wherein said spacer comprises a biocompatible metal spacer.

45. (currently amended): The connection ~~unit~~ system of claim 39 wherein said spacer comprises a metal-synthetic hybrid spacer.

46. (currently amended) A connection ~~unit~~ system, comprising:

a rod comprising a first element, a second element, a third element and a longitudinal element;

a first element configured to be coupled to a first securing member of a first bone securing assembly connected to the rod, the first securing member being configured to engage assembly securing the rod to a bone structure of a patient, wherein the first element is a distinct and separate element from the first securing member;

a second element configured to be coupled to a second securing member of a second bone securing assembly connected to the rod at a different location than the first bone securing member, the second securing member being configured to engage assembly securing the rod to a bone structure of the patient at a different location from the first securing assembly member, wherein the second element is a distinct and separate element from the second securing member;

a third element wherein the third element is located between the first and second elements and having includes a longitudinal channel therein; and

~~a longitudinal element configured to pass~~wherein the longitudinal element passes through the longitudinal channel of the third element and ~~configured to be~~ is secured to at least one of the first and second elements, wherein the first and second elements substantially limit motion of the third element in a longitudinal direction of the longitudinal element ~~and wherein the connection unit is sized and configured to be completely implanted into the patient.~~

47. (currently amended): The connection ~~unit~~ system of claim 46 wherein the longitudinal element comprises a wire.

48. (currently amended): The connection ~~unit~~ system of claim 46 wherein the longitudinal element comprises a braided wire.

49. (currently amended): The connection system of claim 46 wherein said third element comprises a biocompatible metal spacer.

50. (currently amended): The connection system of claim 46 wherein said third element comprises a metal-synthetic hybrid spacer.

51. (currently amended): The connection system of claim 46 wherein said third element comprises a synthetic spacer.

52. (currently amended) A connection ~~unit~~ system, comprising:
a rod having a first element, a second element, a third element and a longitudinal element;
~~a first element configured to be coupled to a first securing member of a first bone securing assembly, the first securing member being configured to engage assembly securing the rod to a bone structure of a patient, wherein the first element is a distinct and separate element from the first securing member;~~
a second element configured to be coupled to a second securing member of a second bone securing assembly, the second securing member being configured to engage assembly securing the rod to a bone structure at a different location from the first securing member assembly and

having an longitudinal channel therein, wherein the second element is a distinct and separate element from the second securing member;

a ~~third element located such that~~ wherein the second element is located between the first and third elements and includes a longitudinal channel therein; and

a ~~longitudinal element configured to pass~~ wherein the longitudinal element passes through the longitudinal channel of the second element and ~~configured to be~~ is secured to at least one of the first and third elements, wherein the first and third elements substantially limit motion of the second element in a longitudinal direction of the longitudinal element and wherein ~~the connection unit is sized and configured to be completely implanted into the patient~~ the first and second bone securing assemblies secure the rod at least partially between the exterior of a first vertebra and a second vertebra.

53. (currently amended) The connection ~~unit~~ system of claim 52 wherein the longitudinal element comprises a wire.

54. (currently amended) The connection ~~unit~~ system of claim 52 wherein the longitudinal element comprises a braided wire.

55. (currently amended) The connection ~~unit~~ system of claim 52 wherein said ~~third~~ second element comprises a biocompatible metal spacer.

56. (currently amended) The connection unit of claim 52 wherein said ~~third~~ system element comprises a metal-synthetic hybrid spacer.

57. (currently amended) The connection ~~unit~~ system of claim 52 wherein said ~~third~~ second element comprises a synthetic spacer.

58. (currently amended) The connection ~~unit~~ system of claim 39 wherein the longitudinal member is formed integrally with at least one of the first and second end portions.

59. (currently amended) The connection ~~unit~~ system of claim 39 wherein the first and second end portions each have a cross-sectional area that is greater than a cross-sectional area of the longitudinal member ~~such that the first and second end portions substantially limit motion of the spacer in the longitudinal direction.~~

60. (currently amended) The connection ~~unit~~ system of claim 39 wherein the first and second end portions each have a circumference that is greater than a circumference of the longitudinal member ~~such that the first and second end portions substantially limit motion of the spacer in the longitudinal direction.~~

61. (currently amended) The connection ~~unit~~ system of claim 46 wherein the longitudinal element is formed integrally with at least one of the first and second elements.

62. (currently amended) The connection ~~unit~~ system of claim 52 wherein the longitudinal element is formed integrally with at least one of the first and third elements.